



Rabbit Anti-phospho-14-3-3 beta + zeta (Ser186 / Ser184) antibody

SL13773R

Product Name:	phospho-14-3-3 beta + zeta (Ser186 / Ser184)
Chinese Name:	磷酸化14-3-3 β/ζ抗体
Alias:	14-3-3 beta + zeta (phospho S184 + S186); 14-3-3 beta + zeta (phospho S186); 14-3-3 beta + zeta (phospho Ser186); p-14-3-3 beta + zeta (Ser186) 14 3 3 protein beta; 14 3 3 protein beta/alpha; 14 3 3 protein zeta/delta; 14 3 3 zeta; HS1; KCIP1; YWHAB; YWHAZ.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Chicken, Dog, Pig, Cow, Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=0.2μg/TestICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	28kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human 14-3-3 beta + zeta around the phosphorylation site of Ser186 / Ser184:LN(p-S)PE
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

Members of the 14-3-3 family of proteins are highly conserved proteins, localized in neurons, and are axonally transported to the nerve terminals. They are also present, at lower levels, in various other eukaryotic tissues. 14-3-3 proteins appear to play important roles in a variety of signal transduction pathways, including those involved in cell cycle regulation and cell survival. Because 14-3-3 proteins bind to specific phosphoserine-containing sequences they are likely to have an important role in signaling pathways mediated by serine/threonine protein kinases. Evidence indicates 14-3-3 is required for Raf 1 kinase activity and phosphorylation among many other functions.

Function:

14-3-3 proteins are highly conserved proteins which play a role in both signal transduction and progression through the cell cycle by binding to and regulating several different proteins. 14-3-3 proteins activate tyrosine and tryptophan hydroxylases and protein kinase C. They mediate signal transduction by binding to phosphoserine-containing proteins. There are at least 7 mammalian isoforms: alpha, beta, gamma, delta, epsilon, zeta, and eta. An eighth subtype, termed theta has been found in rat brain. The 14-3-3 proteins exist in vitro and in vivo as either homo- or heterodimers which interact via their N-terminal domains and are subject to phosphorylation by protein kinase C. 14-3-3 proteins are localized in the cytoplasm of neurons in the cerebral cortex and are axonally transported to the nerve terminals. They may be present at lower levels in various other eukaryotic tissues. Northern blot analysis has shown expression of the eta chain in cultured cell lines derived from various tumors.

Product Detail:

Subunit:

Interacts with CDK16 and BSPRY. Interacts with WEE1 (C-terminal). Interacts with SAMS1. Interacts with MLF1 (phosphorylated form); the interaction retains it in the cytoplasm. Interacts with Thr-phosphorylated ITGB2. Interacts with BCL2L11. Homodimer. Heterodimerizes with YWHAZ. Homo- and hetero-dimerization is inhibited by phosphorylation on Ser-58. Interacts with FOXO4, NOXA1, SSH1 and ARHGEF2. Interacts with Pseudomonas aeruginosa exoS (unphosphorylated form). Interacts with BAX; the interaction occurs in the cytoplasm. Under stress conditions, MAPK8-mediated phosphorylation releases BAX to mitochondria. Interacts with phosphorylated RAF1; the interaction is inhibited when YWHAZ is phosphorylated on Thr-232. Interacts with TP53; the interaction enhances p53 transcriptional activity. The Ser-58 phosphorylated form inhibits this interaction and p53 transcriptional activity. Interacts with ABL1 (phosphorylated form); the interaction retains ABL1 in the cytoplasm. Interacts with PKA-phosphorylated AANAT; the interaction modulates AANAT enzymatic activity by increasing affinity for arylalkylamines and acetyl-CoA and protecting the enzyme from dephosphorylation and proteasomal degradation. It may also prevent thiol-dependent inactivation. Interacts with AKT1; the interaction phosphorylates YWHAZ and modulates dimerization. Interacts with GAB2 and TLK2.

Subcellular Location:

Cytoplasmic. Melanosome (fractions from stage I to stage IV)

Post-translational modifications:

The delta, brain-specific form differs from the zeta form in being phosphorylated (By similarity). Phosphorylation on Ser-184 by MAPK8; promotes dissociation of BAX and translocation of BAX to mitochondria. Phosphorylation on Ser-58 by PKA; disrupts homodimerization and heterodimerization with YHAE and TP53. This phosphorylation appears to be activated by sphingosine. Phosphorylation on Thr-232; inhibits binding of RAF1.

Similarity:

Belongs to the 14-3-3 family.

SWISS:

P31946

Gene ID:

7529

Database links:

[Entrez Gene: 7529](#)Human

[Entrez Gene: 7534](#)Human

[Entrez Gene: 22631](#)Mouse

[Entrez Gene: 54401](#)Mouse

[Entrez Gene: 25578](#)Rat

[Entrez Gene: 56011](#)Rat

[Omim: 601288](#)Human

[Omim: 601289](#)Human

[SwissProt: P31946](#)Human

[SwissProt: P63104](#)Human

[SwissProt: P35215](#)Mouse

[SwissProt: Q9CQV8](#)Mouse

[SwissProt: P35213](#)Rat

[SwissProt: P63102](#)Rat

[Unigene: 492407](#)Human

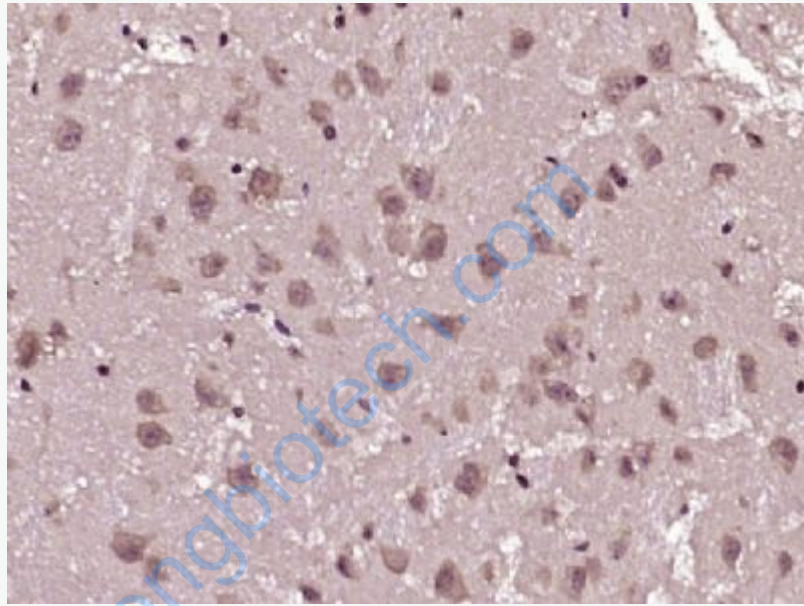
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[Unigene: 1292](#)Rat

[Unigene: 8653](#)Rat

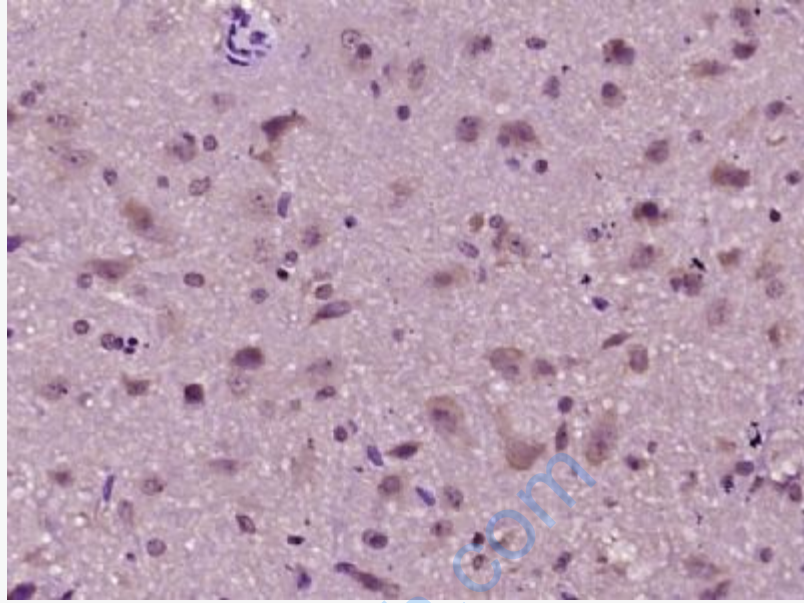
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

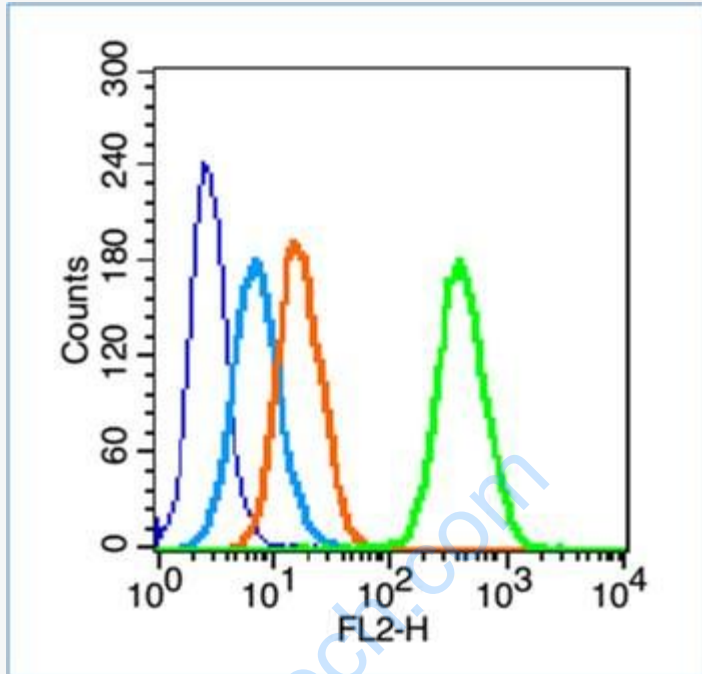


Picture:

Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (YWHAB) Polyclonal Antibody, Unconjugated (SL13773R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (YWHAB) Polyclonal Antibody, Unconjugated (SL13773R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Blank control (blue line): HL60 (fixed with 70% ethanol (overnight at 4°C) and then permeabilized with 0.1% PBS-Tween for 20 min at room temperature).

Primary Antibody (green line): Rabbit Anti-phospho-14-3-3 beta + zeta (Ser186) antibody (SL13773R), Dilution: 0.2µg /10⁶ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE, Dilution: 1µg /test.